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June 28, 2017

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
70111150000234378193

Illinois Environmental Protection Agency
Water Pollution Control
Compliance Assurance Section #19
Annual Inspection Report
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Re: 2017 Annual Storm Water Inspection Report
Flint Hills Resources Peru, LLC
NPDES Permit ILR000057

Dear Madam or Sir:

Enclosed is the 2017 Annual Storm Water Inspection Report for the Flint Hills Resources Peru, LLC ("FHRP") facility located in Peru, IL (the "Facility"). This report is being submitted pursuant to Condition 1 of Section K, of the Facility's General NPDES Permit ("Permit").

Pursuant to Condition 2 of Section J, initial benchmark monitoring for total zinc based on the Facility's SIC Code 2821 results were below the corrective action limits based on hardness values of the receiving waters. Samples collected on June 16, 2017 from discharge point A and discharge point B were 0.069 mg/L and 0.030 mg/L respectively. Receiving water hardness is estimated at 321.12 mg/L based on the average of 62 samples collected from January 2007 through April 2016 by the Illinois Environmental Protection Agency at Station D-23 from the Illinois River.

As required by the Permit, a copy of the Facility's updated Storm Water Pollution Prevention Plan (SWPPP) will be electronically submitted to epa.indilr00swppp@illinois.gov on June 29, 2017.

Additionally, as required by the Permit, the 2016 Annual Inspection Report will be electronically submitted to epa.indannualinsp@illinois.gov on June 29, 2017.

Should you have any questions or need additional information regarding this submittal, please contact Lacy Mills at (815) 224-5451.

Sincerely,

Brian Marcinkus
Plant Manager

– 501 Brunner Street – Peru, Illinois 61354 – 815-224-1525 – Fax 815-224-5278 –

Enclosures:

- Attachment 1 – IEPA Annual Facility Inspection Report
- Attachment 2 – Quarterly Storm Water Inspection Checklist
- Attachment 3 – Quarterly Storm Water Inspection Reports (3rd & 4th Qtr 2016 – 1st & 2nd Qtr 2017)
- Attachment 4 – Summary of Storm Water Related Spill Events during the Reporting Period

ATTACHMENT 1

Flint Hills Resources Peru, LLC
501 Brunner Street
Peru, Illinois
Facility NPDES Permit ID: ILR000057

Illinois EPA Annual Facility Inspection Report

Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control
ANNUAL FACILITY INSPECTION REPORT
for General Storm Water Discharges Associated with Industrial Site Activities

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Compliance Assurance Section at the above address. Complete each section of this report. Place a NA in sections that do not apply to your operation.

Report Period: From: May 1, 2016 To: April 30, 2017

Permit No. ILR00 0057

OWNER/OPERATOR INFORMATION: (As it appears on the current permit)

Name: Flint Hills Resources Peru, LLC

Mailing Address: 501 Brunner Street

City: Peru State: IL Zip: 61354 Telephone: 815-224-5451

Contact Person: Lacy Mills (Person responsible for Annual Report)

FACILITY/SITE INFORMATION: (As it appears on the current permit)

Facility Name: Flint Hills Resources Peru, LLC Primary SIC Code: 2821

Facility Location: 501 Brunner Street

City: Peru IL Zip: 61354 County: LaSalle

RECEIVING WATER INFORMATION:

☐ Storm Sewer Owner of Storm Sewer Systems: _____

☒ Waters of the State Closest Receiving Waters: Illinois River

ADDITIONAL INFORMATION:

Has this facility received an NPDES Permit under a different owner/operator name in the past? If so, list last name permit was issued to: Huntsman Expandable Polymers

Attach information on any activity that has occurred at this facility during the report period that may have resulted in pollutants discharged to storm water runoff (e.g. Spills).

Attach information on any changes to the facility or the activity occurring at the facility that resulted in significant changes to the SWPPP.

Attach information concerning quarterly visual observations of discharges as found in Section E, Item 8 of the Permit.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Owner Signature: 06/28/2017 Date:

Brian Marcinkus Printed Name: Plant Manager Title:

EMAIL COMPLETED FORM TO: epa.indannualinsp@illinois.gov

or Mail to: ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL
COMPLIANCE ASSURANCE SECTION #19
1021 NORTH GRAND AVENUE EAST
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276

IL 532 2585
WPC 691 Rev 2/2013

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

ATTACHMENT 2

Flint Hills Resources Peru, LLC
501 Brunner Street
Peru, Illinois
Facility NPDES Permit ID: ILR000057

Annual Storm Water Inspection Checklist

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PERU FACILITY
ENVIRONMENTAL DEPARTMENT

QUARTERLY STORM WATER MANAGEMENT INSPECTION CHECKLIST

Date 6/9/16 Weather Conditions Cloudy - Morning Rain

Inspector Name/Title: Adam Chapman - Environmental Engineer

Y/N	DESCRIPTION: COMMENTS REQUIRED IF ANSWERED YES
N	Trash, litter, debris in the vicinity of stormwater collection system components
Y	Significant outdoor accumulations of beads on site -N. PAD - spoke w/Shift Supervisor on cleaning
N	Spillage at compactors
N	Improper outdoor storage of materials, equipment, and chemicals
N	Storage boxes and bags -- torn, damaged, exposed to run-off, spillage
N	Tanks -- corrosion, damage, inadequate support, containment issues, leakage, etc.
N	Drums -- corrosion, damage, uncovered, containment issues, spillage, etc.
N	Secondary containment structures -- structural integrity, presence of oil or residue filled with water, valves open?
N	Piping and valves -- corrosion, leakage, supports, etc.
N	Sheen on skimming pond? Over/under weir performing incorrectly? Stop gate (Outfall #2) valve non-operational?
N	Sheen on Manhole-050 water? Over/under weir performing incorrectly? Stop gate (Outfall #1) valve non-operational?

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PERU FACILITY
ENVIRONMENTAL DEPARTMENT

QUARTERLY STORM WATER MANAGEMENT INSPECTION CHECKLIST

N Pumps and hose connections not structurally sound? Leakage?

N Sludge accumulations near wastewater plant

N Oil staining on ground (outdoors)

N Other residue, discolored surfaces (outdoors)

N Erosion problems

N Accumulations of debris/sediment at catch basins/inlets, stop gates, skimmer pond

N Any non-stormwater discharge to Illinois River

Y Spill response equipment and supplies at appropriate locations
- Appropriate

N Any other issues of non-compliance observed during this inspection

Signature [signature]

Inspector's Supplemental Comments:

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PERU FACILITY
ENVIRONMENTAL DEPARTMENT

QUARTERLY STORM WATER MANAGEMENT INSPECTION CHECKLIST

Date 9/28/16 Weather Conditions Cloudy + Cool

Inspector Name/Title: Adam Chapman - Environmental Engineer

Y/N	DESCRIPTION: COMMENTS REQUIRED IF ANSWERED YES
N	Trash, litter, debris in the vicinity of stormwater collection system components
Y	Significant outdoor accumulations of beads on site – N. Pad area. Spoke w/Shift Supervisor
Y	Spillage at compactors – Small Amount @ perchout. Spoke w/Shift Supervisor
N	Improper outdoor storage of materials, equipment, and chemicals
N	Storage boxes and bags -- torn, damaged, exposed to run-off, spillage
N	Tanks -- corrosion, damage, inadequate support, containment issues, leakage, etc.
N	Drums -- corrosion, damage, uncovered, containment issues, spillage, etc.
N	Secondary containment structures -- structural integrity, presence of oil or residue filled with water, valves open?
N	Piping and valves -- corrosion, leakage, supports, etc.
NO	Sheen on skimming pond? Over/under weir performing incorrectly? Stop gate (Outfall #2) valve non-operational?
NO	Sheen on Manhole-050 water? Over/under weir performing incorrectly? Stop gate (Outfall #1) valve non-operational?

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ENVIRONMENTAL DEPARTMENT

QUARTERLY STORM WATER MANAGEMENT INSPECTION CHECKLIST

N Pumps and hose connections not structurally sound? Leakage?

N Sludge accumulations near wastewater plant

N Oil staining on ground (outdoors)

N Other residue, discolored surfaces (outdoors)

N Erosion problems

N Accumulations of debris/sediment at catch basins/inlets, stop gates, skimmer pond

N Any non-stormwater discharge to Illinois River

Y Spill response equipment and supplies at appropriate locations

N Any other issues of non-compliance observed during this inspection

Signature Adam Clay

Inspector's Supplemental Comments:

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ENVIRONMENTAL DEPARTMENT

QUARTERLY STORM WATER MANAGEMENT INSPECTION CHECKLIST

Date 12/21/16 Weather Conditions Cloudy - 40°

Inspector Name/Title: Adam Chapman - Environmental Engineer

Y/N	DESCRIPTION: COMMENTS REQUIRED IF ANSWERED YES
N	Trash, litter, debris in the vicinity of stormwater collection system components
No	Significant outdoor accumulations of beads on site
N	Spillage at compactors
N	Improper outdoor storage of materials, equipment, and chemicals
N	Storage boxes and bags -- torn, damaged, exposed to run-off, spillage
N	Tanks -- corrosion, damage, inadequate support, containment issues, leakage, etc.
N	Drums -- corrosion, damage, uncovered, containment issues, spillage, etc.
N	Secondary containment structures -- structural integrity, presence of oil or residue filled with water, valves open?
N	Piping and valves -- corrosion, leakage, supports, etc.
NO	Sheen on skimming pond? Over/under weir performing incorrectly? Stop gate (Outfall #2) valve non-operational?
NO	Sheen on Manhole-050 water? Over/under weir performing incorrectly? Stop gate (Outfall #1) valve non-operational?

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ENVIRONMENTAL DEPARTMENT

QUARTERLY STORM WATER MANAGEMENT INSPECTION CHECKLIST

N Pumps and hose connections not structurally sound? Leakage?

N Sludge accumulations near wastewater plant

N Oil staining on ground (outdoors)

N Other residue, discolored surfaces (outdoors)

N Erosion problems

Y Accumulations of debris/sediment at catch basins/inlets, stop gates, skimmer pond
- OC-A6 accumulated near empty drum pad. Scooped away from manhole.

N Any non-stormwater discharge to Illinois River

Y Spill response equipment and supplies at appropriate locations

N Any other issues of non-compliance observed during this inspection

Signature Adam Clay

Inspector's Supplemental Comments:

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PERU FACILITY
ENVIRONMENTAL DEPARTMENT

QUARTERLY STORM WATER MANAGEMENT INSPECTION CHECKLIST

Date 3/30/17 Weather Conditions Cloudy - Rain

Inspector Name/Title: Adam Chapman - Environmental Engineer

Y/N	DESCRIPTION: COMMENTS REQUIRED IF ANSWERED YES
N	Trash, litter, debris in the vicinity of stormwater collection system components
Y	Significant outdoor accumulations of beads on site - North Pad area. Had pocket operator use street sweeper
N	Spillage at compactors
N	Improper outdoor storage of materials, equipment, and chemicals
N	Storage boxes and bags -- torn, damaged, exposed to run-off, spillage
N	Tanks -- corrosion, damage, inadequate support, containment issues, leakage, etc.
N	Drums -- corrosion, damage, uncovered, containment issues, spillage, etc.
N	Secondary containment structures -- structural integrity, presence of oil or residue filled with water, valves open?
N	Piping and valves -- corrosion, leakage, supports, etc.
N	Sheen on skimming pond? Over/under weir performing incorrectly? Stop gate (Outfall #2) valve non-operational?
N	Sheen on Manhole-050 water? Over/under weir performing incorrectly? Stop gate (Outfall #1) valve non-operational?

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PERU FACILITY
ENVIRONMENTAL DEPARTMENT

QUARTERLY STORM WATER MANAGEMENT INSPECTION CHECKLIST

N Pumps and hose connections – structurally sound? Y Leakage? N

N Sludge accumulations near wastewater plant

N Oil staining on ground (outdoors)

N Other residue, discolored surfaces (outdoors)

N Erosion problems

Y Accumulations of debris/sediment at catch basins/inlets, stop gates, skimmer pond
- Minor sediment by empty drum pad. Swept away by P.O. operator

N Any non-stormwater discharge to Illinois River

Y Spill response equipment and supplies at appropriate locations

N Any other issues of non-compliance observed during this inspection

Signature Adam Clay

Inspector's Supplemental Comments:

ATTACHMENT 3

Flint Hills Resources Peru, LLC
501 Brunner Street
Peru, Illinois
Facility NPDES Permit ID: ILR000057

Quarterly Storm Water Inspection Reports
(2nd & 3rd Qtr 2016 – 1st & 2nd Qtr 2017)

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501 Brunner Street
Peru, Illinois

Quarterly Storm Water Sample Collection and Visual Observation

Date and Time of the Qualifying Event	6/9/16 AM - 10:00 AM
Nature of the Qualifying Event (Rain/Snow Melt)	Rain
Magnitude of the Qualifying Event (inches)	0.58 inches
Date and Time of Sampling	6/9/15 - 11:43 AM
Sample Location	M.H. #50
Sample Collector's Name and Title	Chelsea Marnan - Environmental Scientist

Sample Observer's Name and Title *(must be different from sample collector)*	ADAM CHAPMAN - Environmental Engineer
Time of Sample Observation	15:14 - 6/13/16
Color	Mostly Clear
Odor	None
pH	8.4
Clarity	Slightly Hazy
Floating Solids	None
Settled Solids	Bottom 1/3 Covered
Suspended Solids	Small Particles
Foam	None
Oil Sheen	None
Other Obvious Indicators of Pollution	None

Chels J. Marnan — environmental scientist
Signature/Title of Sample Collector

6/13/16
Date

Adam Chap — Environmental Engineer
Signature/Title of Sample Observer

6/13/16
Date:

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501 Brunner Street
Peru, Illinois

Quarterly Storm Water Sample Collection and Visual Observation

Date and Time of the Qualifying Event	6/9/16 - 10:00AM
Nature of the Qualifying Event (Rain/Snow Melt)	Rain
Magnitude of the Qualifying Event (inches)	0.58 inches
Date and Time of Sampling	6/9/16 - 11:35AM
Sample Location	Duck Pond
Sample Collector's Name and Title	Chelsea Murnan - Environmental Scientist

Sample Observer's Name and Title *(must be different from sample collector)*	ADAM CHAPMAN - Environmental Engineer
Time of Sample Observation	15:31 - 6/9/16
Color	Mostly Clear - Slightly Hazy
Odor	None
pH	8.2
Clarity	Hazy; Able to Read through Jar
Floating Solids	None
Settled Solids	Dusting on Bottom
Suspended Solids	None Large Enough to Observe
Foam	None
Oil Sheen	None
Other Obvious Indicators of Pollution	None

Chelsea J. Murnan - Environmental Scientist
Signature/Title of Sample Collector

6/9/16
Date

Adam Chapman - Environmental Engineer
Signature/Title of Sample Observer

6/9/16
Date

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501 Brunner Street
Peru, Illinois

Quarterly Storm Water Sample Collection and Visual Observation

Date and Time of the Qualifying Event	8/30/16 - 10:00
Nature of the Qualifying Event (Rain/Snow Melt)	Rain
Magnitude of the Qualifying Event (inches)	0.76 inches
Date and Time of Sampling	8/30/16 - 10:55
Sample Location	Manhole #50
Sample Collector's Name and Title	Dan Back - Shift Supervisor

Sample Observer's Name and Title *(must be different from sample collector)*	Adam Chapman - Environmental Engineer
Time of Sample Observation	8/30/16 - 13:25
Color	Clear/None
Odor	None
pH	8.1
Clarity	Clear
Floating Solids	None
Settled Solids	Bottom 1/2 Covered
Suspended Solids	Some Small Particles
Foam	None
Oil Sheen	None
Other Obvious Indicators of Pollution	None

Signature/Title of Sample Collector — Date: 8-30-16

Signature/Title of Sample Observer — Date: 8/30/16

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501 Brunner Street
Peru, Illinois

Quarterly Storm Water Sample Collection and Visual Observation

Date and Time of the Qualifying Event	8/30/16 - 10:00
Nature of the Qualifying Event (Rain/Snow Melt)	Rain
Magnitude of the Qualifying Event (inches)	0.76 inches
Date and Time of Sampling	8/30/16 - 10:40
Sample Location	Duck Pond
Sample Collector's Name and Title	Dan Buck - Shift Supervisor

Sample Observer's Name and Title *(must be different from sample collector)*	Adam Chapman - Environmental Engineer
Time of Sample Observation	8/30/16 - 13:15
Color	None/Clear
Odor	None
pH	8.3
Clarity	Mostly Clear
Floating Solids	None
Settled Solids	Bottom Mostly Covered
Suspended Solids	Minimal
Foam	None
Oil Sheen	None
Other Obvious Indicators of Pollution	None

Signature/Title of Sample Collector

8-30-16
Date

Signature/Title of Sample Observer

8/30/16
Date

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501 Brunner Street
Peru, Illinois

Quarterly Storm Water Sample Collection and Visual Observation

Date and Time of the Qualifying Event	11/28/16 - 13:00
Nature of the Qualifying Event (Rain/Snow Melt)	Rain
Magnitude of the Qualifying Event (inches)	0.71 inches
Date and Time of Sampling	11/28/16 14:20
Sample Location	MH-50
Sample Collector's Name and Title	Maurice Stanton - Pendout Relief Operator

Sample Observer's Name and Title *(must be different from sample collector)*	Adam Chapman - Environmental Engineer
Time of Sample Observation	10:10
Color	Clear / None
Odor	None
pH	7.8
Clarity	Mostly Clear
Floating Solids	None
Settled Solids	Bottom Lightly Covered
Suspended Solids	Small Amount
Foam	None
Oil Sheen	None
Other Obvious Indicators of Pollution	None

Maurice Stanton — 11-28-16
Signature/Title of Sample Collector — Date

Adam Chapman - Environmental Engineer — 11/28/16
Signature/Title of Sample Observer — Date:

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501 Brunner Street
Peru, Illinois

Quarterly Storm Water Sample Collection and Visual Observation

Date and Time of the Qualifying Event	11/28/16 – 13:00
Nature of the Qualifying Event (Rain/Snow Melt)	Rain
Magnitude of the Qualifying Event (inches)	0.71 inches
Date and Time of Sampling	11/28/16 – 14:15
Sample Location	Duck Pond/SW Retention Pond
Sample Collector's Name and Title	Maurice Stanton - Packout District Operation

Sample Observer's Name and Title *(must be different from sample collector)*	Adam Chapman - Environmental Engineer
Time of Sample Observation	16:00
Color	Clear/None
Odor	None
pH	8.1
Clarity	Mostly Clear
Floating Solids	None
Settled Solids	Bottom Mostly Covered
Suspended Solids	Minimal
Foam	None
Oil Sheen	None
Other Obvious Indicators of Pollution	None

Maurice Stanton — 11-28-16
Signature/Title of Sample Collector — Date

Adam Chapman - Environmental Engineer — 11/28/16
Signature/Title of Sample Observer — Date:

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501 Brunner Street
Peru, Illinois

Quarterly Storm Water Sample Collection and Visual Observation

Date and Time of the Qualifying Event	3/30/17 - 13:00
Nature of the Qualifying Event (Rain/Snow Melt)	Rain
Magnitude of the Qualifying Event (inches)	1.43 inches
Date and Time of Sampling	3/30/17 - 13:50
Sample Location	Duck Pond - SW Retention Pond
Sample Collector's Name and Title	Justin Cacciatori - Cap. Projects Manger

Sample Observer's Name and Title *(must be different from sample collector)*	Adam Chapman - Environmental Engineer
Time of Sample Observation	3/31/17 - 9:10
Color	None / Clear
Odor	None
pH	7.9
Clarity	Clear
Floating Solids	None
Settled Solids	Bottom 3/4 Covered
Suspended Solids	None
Foam	None
Oil Sheen	None
Other Obvious Indicators of Pollution	None

Justin Cacciatori / Capital Projects Manager — 3-30-17
Signature/Title of Sample Collector — Date

Adam Chapman - Environmental Engineer — 3-30-17
Signature/Title of Sample Observer — Date:

FLINT HILLS resources

501 Brunner Street
Peru, Illinois

Quarterly Storm Water Sample Collection and Visual Observation

Date and Time of the Qualifying Event	3/30/17 - 1300
Nature of the Qualifying Event (Rain/Snow Melt)	Rain
Magnitude of the Qualifying Event (inches)	1.43 inches
Date and Time of Sampling	3/30/17 - 14:20
Sample Location	MH-050
Sample Collector's Name and Title	Justin Cacciatori - Cap. Projects Manager

Sample Observer's Name and Title *(must be different from sample collector)*	Adam Chapman - Environmental Engineer
Time of Sample Observation	3/31/17 - 9:00
Color	None
Odor	None
pH	8.2
Clarity	Clear
Floating Solids	None
Settled Solids	Bottom Covered w/small particles
Suspended Solids	None
Foam	None
Oil Sheen	None
Other Obvious Indicators of Pollution	None

Justin Cacciatori / Capital Projects Manager
Signature/Title of Sample Collector

3-30-17
Date

Adam Chg - Environmental Engineer
Signature/Title of Sample Observer

3-30-17
Date:

ATTACHMENT 4

Flint Hills Resources Peru, LLC
501 Brunner Street
Peru, Illinois
Facility NPDES Permit ID: ILR000057

Summary of Spill Events During the Reporting Period

May 1, 2016 through April 30, 2017

(List of Spills Potentially Impacting Stormwater Runoff)

Flint Hills Resources Peru, LLC
Facility NPDES Permit ID ILR000057
Attachment 4: Summary of Spill Events During the Reporting Period (May 1, 2016 through April 30, 2017)

Incident Date	Time of Spill (24-Hr Format)	Duration of Spill (minutes)	Estimated Release Quantity	Material(s) Involved	Location of Spill	Description of Spill	Cause of Spill	Spilled Surface	Mitigation and Prevention
May 9, 2016	10:00	15 minutes	5 gallons	Steam Condensate	South of Boiler #4 building	The Deaerator tank for the boilers overfilled which resulted in a condensate spill to the ground. The deaerator level control lost power causing the deaerator fill valve to open. This valve is designed to fail open.	The deaerator level control is powered from boiler #4 O2 trim controls which are part of the boiler controls upgrade. All labels and drawings indicate only O2 trim controls powered from circuit.	Asphalt, gravel, storm water sewer	Absorbents used to stop flow of condensate into the closest storm water catch basin. Storm water outfall stop gate valve was closed and sewer system was flushed and pumped to the waste water treatment outfall. No boiler steam condensate was discharged. Electrical drawings for the Deaerator tank level control were updated along with circuit breaker panel labeling.
May 17, 2016	11:30	2 minutes	2 gallons	Water and fire foam mixture	North of Shipping docks/south of Building 4	While loading a tanker truck with Building 4 pit foam and water mixture, excess foaming inside the tanker caused foam to discharge from the tanker's vacuum pump exhaust.	Inadequate amount of defoamer added to the tanker truck during loading	Concrete	Absorbent pads were used to absorb the spilled material. No spilled material entered the facility's storm water sewer system. Defoamer is now added prior to loading tanker trucks with this material.
July 13, 2016	19:45	180 minutes	Approximated at 20 gallons	Fire Foam/Vapor Suppression Foam	Southeast and Southwest area of Building 4 containment pit	Elevated temperature during a batch reaction caused the safety interlock system ("SIS") to pre-foam the Building 4 containment pit in preparation for a potential emergency dump. Multiple shots of foam were discharged into the containment pit causing it to overfill with foam.	SIS system pre-foam discharged each time the batch reaction hit a high temperature set point.	Asphalt, concrete	Once the batch reaction was in a safe state, defoamer was used to dissipate the foam and all material was washed back into the containment pit. No fire foam entered the storm water sewer system. Additional interlocks in the SIS system were implemented to prevent multiple discharges of pre-foam during batch upsets.
July 15, 2016	7:20	Unknown (12 hrs maximum)	50 gallons	Water and fire foam mixture	Empty trailer staging row	Dump trucks filled with solid waste material from the Building 4 containment pit were held on-site overnight until the local landfill reopened the next day. During the night, absorbent material placed in dump truck became saturated with the wet solid waste material and began to dewater.	Inadequate amount of adsorbent placed in the dump truck	Gravel (CA6)	Used absorbents and bentonite clay to absorb pooled material. Wet clay/top gravel was removed and replaced with new gravel. No water and fire foam liquid mixture entered the storm water sewer system. Trucks were raised and dewatered inside a containment area for the waste water treatment plant. Dump trucks with wet material left on-site overnight will be staged inside containment.

Flint Hills Resources Peru, LLC
Facility NPDES Permit ID ILR000057
Attachment 4: Summary of Spill Events During the Reporting Period (May 1, 2016 through April 30, 2017)

Incident Date	Time of Spill (24-Hr Format)	Duration of Spill (minutes)	Estimated Release Quantity	Material(s) Involved	Location of Spill	Description of Spill	Cause of Spill	Spilled Surface	Mitigation and Prevention
July 25, 2016	9:15	15 minutes	0.28 pounds	Styrene monomer	Southwest of Building 4 at metering station	Operator observed styrene dripping from an automatic valve at the process unit metering station	Fugitive emission valve stem leak	Gravel (CA6)	Secondary containment and absorbents were placed underneath the leak. The valve stem packing gland was tightened and the leak was repaired. Affected gravel was removed and disposed. No styrene entered the storm water sewer system.
August 29, 2016	8:15	0.5 minutes	10 gallons	Waste water sludge	South door of waste water treatment ("WWTP")	A hose came out of the WWTP south sludge pit while pumping sludge from the material holding pit.	Hose was improperly secured inside the south sludge pit	Concrete, storm water sewer	Storm water stop gate was closed. Pumping was immediately shut down. A portion of the sludge migrated to a nearby storm water drain. The portion of the storm water sewer system affected was isolated, flushed and vacuumed with an industrial vacuum truck. The hose was secured with additional rope and weights to ensure it did not come out of the sludge pit manway. No waste water sludge was discharged off-site.
August 31, 2016	00:05	Unknown – (Maximum of 6 hours)	Approximated at 27,360 gallons	Process waste water	Building 4 bead recovery sump	Shift supervisor discovered east wastewater sump pit overflowing into secondary containment curbing area. Wastewater flowed from secondary containment curbing back into a larger wastewater containment pit.	Equipment failure – Sump shut down/tripped out. Level indication on sump height was not working correctly.	Concrete	A maintenance callout was completed to repair the sump pump. The bead recovery sump level indicator was repaired the following day. No process waste water entered the storm water sewer system.
September 18, 2016	14:25	Unknown (Maximum of 15 minutes)	Approximated at 1,140 gallons	Process waste water	Building 4 bead recovery sump	Building 4 6th floor operator noticed the containment pit filling with water that was overflowing from the bead recovery sump pit. Wastewater flowed from secondary containment curbing back into the Building 4 containment pit.	Equipment failure – The pit grating had shifted out of place and was causing the sump float to stick and not engage the sump pump.	Concrete	The grating was repositioned and the sump functioned properly. No process waste water entered the storm water sewer system.
October 7, 2016	7:50	Unknown – (maximum 15 minutes)	Approximated at 1,140 gallons	Process waste water	Building 4 bead recovery sump	Building 4 console operator reported a high level on the Building 4 bead recovery sump pit. Upon investigation the float was stuck in the up position and had overloaded the bead recovery screeners causing them to overflow back into the Building 4 containment pit.	Equipment failure – Sump float guide causing float to stick in the engaged position	Concrete	The float was repositioned and system/sump functioned properly. Maintenance modified the float guide for the bead recovery sump to prevent sticking. No process waste water entered the storm water sewer system.

Flint Hills Resources Peru, LLC
Facility NPDES Permit ID ILR000057
Attachment 4: Summary of Spill Events During the Reporting Period (May 1, 2016 through April 30, 2017)

Incident Date	Time of Spill (24-Hr Format)	Duration of Spill (minutes)	Estimated Release Quantity	Material(s) Involved	Location of Spill	Description of Spill	Cause of Spill	Spilled Surface	Mitigation and Prevention
October 30, 2016	7:20	20 minutes	Approximated at 20 gallons	Process waste water	Pilot plant sump pit	While emptying the waste water from the material holding pit into the pilot plant sump pit, the pilot plant sump pump could not sustain pumping at the rate water was being added.	Failure to match/lower pumping rates	Asphalt/Storm water sewer system	Pumping was immediately shut down. The storm water outfall stop gate was closed at the time. Flush water was ran into the sewer and was pumped out to the waste water treatment plant at the outfall weir vault. No process waste water was discharged from the storm water outfall.
November 8, 2016	14:15	Unknown	Approximated at 50 gallons	Steam condensate	WWTP northeast exterior wall	A pilot plant operator noticed a steam condensate mover tank overflow line was discharging condensate to the ground.	Mechanical failure – Condensate pump float switch was not engaging to pump the tank level down	Gravel	A closed top barrel was placed underneath the condensate overflow discharge line. Maintenance fixed the float switch on the pump and extended the condensate overflow line to discharge into the pilot plant sump pit. No steam condensate entered the storm water sewer system.
December 7, 2016	9:00	Unknown	<4 ounces	Oil sheen on storm water inside secondary containment	South of Building 4	A contractor was picking up an empty frac tank and noticed an oil sheen on the storm water inside the secondary containment berm.	Unknown – Likely exterior oily residue on the frac tank washed off from a rain event	Secondary containment berm	The storm water inside the berm was pumped to the WWTP and absorbents were used to remove the sheen from the containment berm. No oil or sheen was released from the berm or entered the storm water sewer system. Per the facility's SPCC, all secondary containment areas must be inspected for visible signs of oil sheen prior to draining.
January 3, 2017	22:00	Unknown	Approximated at 20 gallons	Steam condensate	Extrusion west exterior wall	Shift supervisor found the extrusion condensate mover tank overflow line was discharging condensate on the ground.	Mechanical failure – Condensate float switch and pump were not functioning properly	Gravel	Equipment was bypassed to stop the condensate discharge. Maintenance replaced the float switch and pump assembly. No steam condensate entered the storm water sewer system.

Flint Hills Resources Peru, LLC
Facility NPDES Permit ID ILR000057
Attachment 4: Summary of Spill Events During the Reporting Period (May 1, 2016 through April 30, 2017)

Incident Date	Time of Spill (24-Hr Format)	Duration of Spill (minutes)	Estimated Release Quantity	Material(s) Involved	Location of Spill	Description of Spill	Cause of Spill	Spilled Surface	Mitigation and Prevention
February 24, 2017	14:20	0.5 minutes	1 gallon	Diesel fuel	Shipping docks	A truck driver had a loose fuel cap that came off while backing up to a loaded trailer. As the truck hitch engaged the trailer, diesel fuel spilled onto the pavement from the tank.	Loose fuel cap on semi diesel tank	Asphalt	Absorbents and oil dry were placed on the spill and properly disposed of once the spill was absorbed. No diesel fuel entered the storm water sewer system.
March 14, 2017	8:00	5 minutes	1 gallon	Engine anti-freeze	North of Shipping/receiving door	The anti-freeze hose on the spotter truck became disconnected from the radiator and discharged coolant.	Loose radiator coolant hose	Asphalt	Oil dry was used to absorb the anti-freeze. Used oil dry was swept and shoveled into a container and properly disposed of. No anti-freeze entered the storm water sewer system.
March 29, 2017	12:00	10 minutes	<2 ounces	Oil sheen	Sidewalk north of air compressor room	Employee noticed oil sheen on sidewalk outside air compressor room.	A floor drain in the compressor room that discharges to the waste water sewer system had become plugged and was being cleared by hydro blasting. Excess oily water overflowed the door threshold onto the concrete sidewalk.	Concrete	Absorbents and oil dry were placed on the sheen. Contaminated materials were placed in an open top drum and properly disposed of. Environmental spoke with maintenance employees about the risks and consequences of discharging any amount of oily water outside a containment. No oil or sheen entered the storm water sewer system.